

E. NON-TECHNICAL ABSTRACT

This non-technical abstract has been updated to reflect changes made to the protocol.

A PHASE I/II DOSE ESCALATION AND EFFICACY TRIAL OF GVAX[®] PROSTATE CANCER VACCINE IN PATIENTS WITH METASTATIC HORMONE-REFRACTORY PROSTATE CANCER

Non-technical Abstract

Prostate cancer is a common form of cancer in adult males in the United States. In 1997, 32,891 US men died from prostate cancer. Surgical removal of the prostate or radiation treatment may cure early prostate cancer if the tumor has not spread outside the prostate gland. However, in 70% of patients, the cancer will spread, mostly to the bone. At this point, the cancer cannot be cured. Hormone therapy can control advanced cancer temporarily in most patients, but the advanced cancer progresses in nearly all patients. Once a patient's cancer no longer responds to hormone therapy, chemotherapy may relieve pain or other symptoms caused by the tumors, but there is no treatment that can improve survival.

GVAX[®] Prostate Cancer Vaccine is a vaccine made from cells taken from the tumors of 2 patients with advanced prostate cancer. To make the vaccine, the cells are altered by inserting a gene for granulocyte-macrophage colony-stimulating factor (GM-CSF), a substance made by the body that helps the immune system recognize a tumor and destroy it. The gene for GM-CSF is inserted into the prostate cancer cells using an artificial virus that contains parts of a natural virus called "Adeno-associated Virus." The cells are then grown in a laboratory to produce the vaccine. The vaccine cells are treated with radiation so they cannot grow or divide after injection. The cells themselves are **not** radioactive. The cells are frozen to preserve them until they are administered to the patient.

This is a phase I/II clinical trial. In the first phase of the trial, patients receive 1 of 2 dose levels of the vaccine. The objectives of this phase of the trial are 1) to evaluate the safety of the vaccine in patients receiving 4 dose levels of GVAX[®] Prostate Cancer Vaccine in order to determine a dose to use in phase II trials; and 2) to measure serum GM-CSF levels in the blood after each vaccination as an indirect measure of how the vaccine cells are functioning. The objectives of the second phase of the trial are 1) to further evaluate the safety of the vaccine; and 2) to observe any antitumor or therapeutic response as measured by lowering of prostate-specific antigen (PSA) levels in the blood, the length of time a patient experiences improvement or stabilization of his condition, and how long the patient survives. An antigen is a substance capable of inducing a specific immune response.

Subjects in the study must have metastatic adenocarcinoma of the prostate. They must have received hormone therapy with at least a partial response, and must no longer respond to hormone therapy. Their serum PSA must be at least 5.0 ng/mL. They must not have a history of bone pain from their disease. Patients who have received prior gene therapy, chemotherapy, biologic therapy, or immunotherapy, and patients who have tested positive for

HIV, are not eligible for enrollment in this trial. Patients also cannot receive other therapy for prostate cancer while they are on this trial.

Participants receive 6 or 12 doses of GVAX[®] Prostate Cancer Vaccine, injected into the skin, 1 dose about every 14 or 28 days.

Patients are followed for 1 year after they start receiving treatment. The first follow-up visit is approximately 1 month after the last vaccination. The second and third follow-up visits are 3 months and 6 months after the last vaccination. Assessments at follow-up visits include monitoring of adverse events, i.e., anything unusual that has occurred since the last visit, and evaluation for any new cancer or new diagnoses of autoimmune disease.